



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF6-80C2A2  
 UNIQUE ID NUMBER: 2GE037  
 COMBUSTOR: 1862M39  
 ENGINE TYPE: TF

BYPASS RATIO: 5.1  
 PRESSURE RATIO ( $\pi_{00}$ ): 27.8  
 RATED THRUST ( $F_{00}$ ) (kN): 233.4

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	3.4	34.0	44.0	6.8
AS % OF ORIGINAL LIMIT	17.1	28.8	46.0	36.2
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			57.5	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			69.3	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			78.8	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			93.6	

### DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 - REVISED (SEE REMARKS)

### TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
 - DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 x OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	2.152	0.05	0.04	22.35	5.8
CLIMB OUT	85	2.2	1.771	0.05	0.05	18.37	3.2
APPROACH	30	4.0	0.590	0.12	2.56	11.86	0.0
IDLE	7	26.0	0.192	1.90	21.97	4.49	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			765	602	6958	9339	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				2.6	29.8	40.0	5.8
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.3	1.3	0.2	0.6
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				2.37-2.99	28.7-31.5	39.7-40.3	5.1-6.6

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS  
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.6-98.2
TEMPERATURE (K)	279-293
ABS HUMIDITY (kg/kg)	0.00457-0.00743

### FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	15.3

MANUFACTURER: General Electric Company  
 TEST ORGANIZATION: CF6 Eval Engineering  
 TEST LOCATION: Site IIIB, PTO Peebles  
 TEST DATES: 13/01/1995-17/01/1995

### REMARKS

1. Ref GE report TM95-17.
2. Engine S/N 704/233 & 704/234
3. 1862M39 combustor

Compliance with Fuel Venting requirements: -

('x' if complies, 'PR' if pre-regulation, '-' if information is not available)